# IDAHO CONTENT STANDARDS GRADE 6 MATHEMATICS

## **Standard 1: Number and Operation**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 1.1: Understand and use numbers.	magnitudes and relative	6.M.1.1.2 Explain the interrelationship of fractions, decimals, and percents. (317.01.b)	6.M.1.1.3 Locate the position of integers on a number line.		6.M.1.1.5 Apply number theory concepts (prime, composite, prime factorization) and identify common factors and common multiples. (317.01.e)	6.M.1.1.6 Solve problems using the 4-step process of problem solving (explore, plan, solve, and examine). (318.01.b)	6.M.1.1.7 Describe the use of integers in real-world situations. (317.01.f)	6.M.1.1.8 Use appropriate vocabulary.	
Goal 1.2: Perform computations accurately.	6.M.1.2.1 Recall basic multiplication and division facts from 12 x 12 Times Table. (317.02.d)	6.M.1.2.2 Add, subtract, multiply, and divide whole numbers, decimals, and simple fractions (including unlike denominators). (317.02.a, 317.02.b, 317.02.c, 317.02.g)	6.M.1.2.3 Evaluate numerical expressions with whole numbers using the order of operations (excluding exponents). (317.02.e)	6.M.1.2.4 Select and use an appropriate method of computation from mental math, paper and pencil, calculator or a combination of the three. (317.02.h)	6.M.1.2.5 Use a variety of strategies to solve real life problems. (318.01.a)	6.M.1.2.6 Use appropriate vocabulary and notations. (317.02.i)			
Goal 1.3: Estimate and judge reasonableness of results.		6.M.1.3.2 Explain when estimation is appropriate. (317.03.b)	6.M.1.3.3 Identify whether a given estimate is an overestimate or underestimate. (317.03.c)	6.M.1.3.4 Use a four-function calculator to solve complex grade-level problems.	6.M.1.3.5 Formulate conjectures and discuss why they must be or seem to be true. (318.02.c)	6.M.1.3.6 Use appropriate vocabulary. (317.03.d)			

## **Standard 2: Concepts and Principles of Measurement**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 2.1: Understand and use U.S. customary and metric measurements.		6.M.2.1.2 Apply estimation of measurement to real-world and content problems using standard measuring devices. (319.01.b)	6.M.2.1.3 Apply understanding of relationships to solve real- world problems related to elapsed time. (319.01.f)	6.M.2.1.4 Given the formulas, find the perimeter or circumference and area of triangles, circles and parallelograms (all kinds). (319.01.c, 321.01.e)	measurement within each	6.M.2.1.6 Solve problems involving perimeter and area of rectangles. (321.01.d)	6.M.2.1.7 Use appropriate vocabulary and notations. (319.01.g)		
Goal 2.2: Apply the concepts of rates, ratios, and proportions.	6.M.2.2.1 Identify and write ratios and scales (on a map). (319.03.a)								
Goal 2.3: Apply dimensional analysis.	No objectives at this grade level.								

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## **Standard 3: Concepts and Language of Algebra and Functions**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.	6.M.3.1.1 Discuss the meaning and use of variables in simple expressions and equations. (320.01.a)	6.M.3.1.2 Translate simple word statements into algebraic equations. (320.01.b)	6.M.3.1.3 Read and use symbols of "<," ">," and "=" to express relationships. (320.01.c)						
Goal 3.2: Evaluate algebraic expressions.	6.M.3.2.1 Use the following properties in evaluating numerical expressions: commutative, associative, identity, zero, inverse, and distributive. (320.02.a)	6.M.3.2.2 Evaluate simple algebraic expressions using substitution.							
Goal 3.3: Solve algebraic equations and inequalities.	6.M.3.3.1 Solve one-step equations with whole numbers. (320.03.a)								
Goal 3.4: Understand the concept of functions.	6.M.3.4.1 Extend simple patterns and state a rule (function) that generates the pattern using whole numbers, decimals, and fractions as inputs. (323.01.a)	6.M.3.4.2 Describe and extend patterns by using manipulatives and pictorial representations. (323.01.b)	6.M.3.4.3 Use mathematical models to show change in a real world context. (323.01.c)	6.M.3.4.4 Use appropriate vocabulary. (323.01.d)					
Goal 3.5: Represent equations, inequalities and functions in a variety of formats.	No objectives at this grade level.								
Goal 3.6: Apply functions to a variety of problems.	6.M.3.6.1 Use patterns to represent and solve simple problems.								

## **Standard 4: Concepts and Principles of Geometry**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 4.1: Apply concepts of size, shape, and spatial relationships.		various angles and shapes using appropriate tools.	6.M.4.1.3 Apply fundamental concepts, properties, and relationships among points, lines, rays, and angles. (321.01.c)	reflections, translations, and	congruence, similarities, and	6.M.4.1.6 Discuss the spatial relationship between two- and three-dimensional objects. (321.01.f)	6.M.4.1.7 Use appropriate vocabulary and symbols. (323.01.h)		
Goal 4.2: Apply the geometry of right triangles.	No objectives at this grade level.								
Goal 4.3: Apply graphing in two dimensions.	6.M.4.3.1 Identify and plot points in the first quadrant on a coordinate plane. (321.02.a)								

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## **Standard 5: Data Analysis, Probability, and Statistics**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7	Objective 8	Objective 9
Goal 5.1: Understand data analysis.	6.M.5.1.1 Read and interpret tables, charts, and graphs, including broken line graphs, bar graphs, frequency tables, line plots, and circle graphs. (322.01.a)	6.M.5.1.2 Explain and justify stated conclusions drawn from tables, charts, and graphs. (322.01.b)	6.M.5.1.3 Use appropriate vocabulary and notations. (322.01.c)						
Goal 5.2: Collect, organize, and display data.	6.M.5.2.1 Collect, organize, and display the data with appropriate notation in tables, charts, and graphs, including broken line graphs, bar graphs, frequency tables and line plots. (322.02.a)								
Goal 5.3: Apply simple statistical measurements.	6.M.5.3.1 Find measures of central tendency – mean, median, and mode – with simple sets of data. (322.03.a)	6.M.5.3.2 Calculate the range of a set of data. (322.03.b)							
Goal 5.4: Understand basic concepts of probability.	6.M.5.4.1 Predict, perform, and record results of simple probability experiments. (322.04.a)	6.M.5.4.2 Use the language of probability. (322.04.b)							
Goal 5.5: Make predictions or decisions based on data.	6.M.5.5.1 Make predictions based on data. (318.01.c)								

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